

1 The opinion in support of the decision being entered today was *not* written
2 for publication and is *not* binding precedent of the Board
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4 UNITED STATES PATENT AND TRADEMARK OFFICE
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6
7 BEFORE THE BOARD OF PATENT APPEALS
8 AND INTERFERENCES
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11 *Ex parte* CHARLES C. PACKHAM and TREVOR JOHN CRICHTON
12

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14 Appeal 2007-2732
15 Application 09/422,758
16 Technology Center 3700
17

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19 Decided: September 20, 2007
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22 *Before:* WILLIAM F. PATE, III, MURRIEL E. CRAWFORD, and
23 JENNIFER D. BAHR, *Administrative Patent Judges*.
24

25 CRAWFORD, *Administrative Patent Judge*.
26

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28 DECISION ON APPEAL
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30 STATEMENT OF CASE

31 Appellants appeal under 35 U.S.C. § 134 (2002) from a final rejection
32 of claims 1-19 and 38, 39, 42, 43, 46, 47, and 50-58. Claims 20, 21, 40, 41,
33 44, 45, 48 and 49 have been withdrawn from consideration and claims 22-37
34 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

35 Appellants invented a shaving system (Specification 1).

36 Claim 1 under appeal reads as follows:

1 1. A shaving cutter comprising a skin-engaging surface having both
2 a convex elliptic region and a hyperbolic region.
3

4 The Examiner rejected claims 1-17, 50-54, 57 and 58 under 35 U.S.C.
5 § 102(b) as being unpatentable over Pranjko.

6 The Examiner rejected claims 18, 19, 38, 39, 42, 43, 46 and 47 under
7 35 U.S.C. § 103(a) as being unpatentable over Pranjko in view of Packham.

8 The Examiner rejected claims 18, 19, 38, 39, 42, 43, 46 and 47 under
9 35 U.S.C. § 103(a) as being unpatentable over Pranjko in view of Furuichi.

10 The Examiner rejected claims 55 and 56 under 35 U.S.C. § 103 as
11 being unpatentable over Pranjko.¹

12 The prior art relied upon by the Examiner in rejecting the claims on
13 appeal is:

14 Packham	GB 2,036,631 A	Jul. 2, 1980
15 Pranjko (as translated)	M 9004739.7	Jul. 25, 1990
16 Furuichi (as translated)	JP 5-49760-A	Mar. 2, 1993

17
18 Appellants contend that Pranjko is not an enabling reference and
19 further does not anticipate the claimed subject matter because Pranjko does
20 not include side views and does not disclose elliptical and hyperbolic
21 regions.

22 Appellants contend with regard to the subject matter of claims 5, 6,
23 and 10 that Pranjko does not disclose a skirt region on the cutter foil.

24 Appellants contend that the undercutter of Packham and Furuichi
25 would not work with the Pranjko structure.

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¹ The Examiner has withdrawn the rejection under 35 U.S.C. § 101 (Answer 3).

1 Finally, Appellants contend that a person of ordinary skill in the art
2 would not know how to fabricate a shaving cutter as recited in claims 55 and
3 56.

5 ISSUES

6 The first issue is whether Appellants have shown that Pranjko is not
7 an enabling reference.

8 The second issue is whether Appellants have shown that the Examiner
9 erred in finding that Pranjko discloses the subject matter claimed because
10 Pranjko does not include side views and does not disclose elliptical and
11 hyperbolic regions.

12 The third issue is whether Appellants have shown that the Examiner
13 erred in finding that Pranjko discloses a skirt region on a cutter foil.

14 The fourth issue is whether Appellants have shown that the Examiner
15 erred in concluding that it would have been obvious to combine the
16 teachings of Pranjko and Packham or Furuichi because the under cutter of
17 Packham and the under cutter of Furuichi would not work in the Pranjko
18 structure.

19 The last issue is whether Appellants have shown that the Examiner
20 erred in finding that a person of ordinary skill in the art would know how to
21 fabricate a shaver cutter as recited in claims 55 and 56.

23 FINDINGS OF FACT

24 Appellants define an elliptic surface as a Gaussian curvature of a
25 curved surface at a point P which has a value $k(P)$ greater than zero and a

1 hyperbolic surface as a Gaussian curvature of a curved surface at a point P
2 which is a value $k(P)$ less than zero (Specification 1). A surface region
3 containing only elliptic points is an elliptic surface region and a surface
4 region containing only hyperbolic points is a hyperbolic surface region.

5 While the term “elliptic” can refer generally to a convex shape, we
6 interpret this term as it is used in the claims to refer to the shape
7 mathematically defined in the Specification. We interpret the terms
8 “parabolic” and “hyperbolic” to be the shapes mathematically defined by
9 the Specification. The definition of hyperbolic seemingly applied by our
10 dissenting colleague appears to be repugnant to the ordinary and customary
11 meaning of that term and is not consistent with the definition expressly set
12 forth in Appellants' Specification. Likewise our dissenting colleague's
13 definition of “elliptic” appears to be inconsistent with the express definition
14 set forth in Appellants' Specification.

15 Appellants define the term “shaving cutter” as a foil-like cutter
16 (Specification 2).

17 Pranjko discloses a banana shaped design of an electric shaver which
18 includes four drawings which are a top view, side view, front, and reverse
19 side (Pranjko 3). The top view depicts a shaver with a first curved convex
20 skin engaging outer region, at the top of the figure and a second curved
21 concave skin engaging inner region at the bottom of the figure. The first
22 curved convex region merges seamlessly with the second curved concave
23 region. The first and second surfaces are shaped such that there exists a
24 cross-sectional plane which intersects the first surface region along a first
25 curved line on which the first surface region is concave (at the top of the top

1 view) with a first radius of curvature and which also intersects the second
2 surface region along a second curved line on which the second surface is
3 convex (at the bottom of the top view) with the second radius of curvature
4 larger than the first radius of curvature. Pranjko does not explicitly disclose
5 a shaving cutter with a convex elliptical region and a hyperbolic region as
6 defined by the Appellants' Specification. However, a person of ordinary
7 skill in the art would have found it obvious to provide a shaving cutter of
8 any non-circular shape as Pranjko teaches one non-circular surface merging
9 with a second non-circular surface region.

10 The figures include a shaded area which one skilled in the art would
11 have understood to be the shaving foil area. A person of ordinary skill in the
12 art would have known how to fabricate the Pranjko shaver cutter having a
13 skin engaging surface and a cheek region comprised of the same material.

14 Packham discloses a shaver which includes an arched foil 8 and an
15 undercutter 13 and a drive element 4.

16 Furuichi discloses a shaver that includes an arched foil outer cutter 2
17 and an undercutter or inner blade 3 and a drive element 4.

18 19 DISCUSSION

20 *Pranjko reference*

21 The Appellants contend that Pranjko is not an enabling reference
22 because Pranjko fails to teach how to fabricate any of the illustrated
23 elements. The Appellants are correct that an anticipating "reference must
24 describe [and enable the claimed invention, including all claim limitations,]
25 with sufficient clarity and detail to establish that the subject matter [already]

1 existed in the prior art and that [its] existence [was] recognized by persons of
2 ordinary skill in the field of the invention.” *Crown Operations Int’l, Ltd. v.*
3 *Solutia Inc.* 289 F.3d 1367, 1375, 62 USPQ2d 1917, 1921 (Fed. Cir. 2002).

4 However, we do not find this argument persuasive because the claims
5 are directed to a shape of a shaver cutter which is clearly shown in Pranjko
6 and therefore Pranjko establishes that the subject matter already existed in
7 the prior art. In our view, a person of ordinary skill in the art would know
8 how to fabricate both plastic and metal into variously desired shapes without
9 undue experimentation as the art of fabrication of shavers is not an
10 unpredictable art and known methods of fabrications as they relate to
11 plastics and metals would be sufficient. Although the Appellants argue that
12 suitable manufacturing techniques for complex curved shapes for an electric
13 razor foil would not have been apparent to one of ordinary skill in the art,
14 the Appellants have not submitted evidence in support of this contention and
15 thus this contention amounts to attorney argument only. In addition,
16 although Appellants use a particular process to fabricate the shaver disclosed
17 in their Specification, a person skilled in the art is not required to use the
18 Appellants’ process to render the Pranjko reference enabling for purposes of
19 anticipation. All that is necessary is that a person with ordinary skill in the
20 field could fabricate the shaver without undue experimentation.

21 *Anticipation by Pranjko*

22 We will not sustain the Examiner’s rejection of claims 1-10, 50-54, 57
23 and 58 under 35 U.S.C. § 102(b) as anticipated by Pranjko because Pranjko
24 does not disclose that the shaver has an elliptical region and a hyperbolic
25 region as required by claim 1 from which claims 2-10 and 54, 57 and 58

1 depend. We will also not sustain the Examiner's rejection of claims 11-17
2 because Pranjko does not disclose a shaver having a first convex region
3 having a shape selected from the group consisting of parabolic and elliptic
4 and a second region having a shape selected from the group consisting of
5 parabolic and hyperbolic as required by claim 11 from which claims 12-17
6 depend. Although, as urged by the Examiner, the shape of the Pranjko
7 shaver may be considered to be banana shaped, such does not in our view,
8 establish that the Pranjko shaver has the specific curved regions recited in
9 claims 1 and 11 and as defined by the Specification and as ordinarily applied
10 to the terms "hyperbolic," "parabolic" and "elliptic." We will also not
11 sustain the rejection of claims 50-53 as anticipated by Pranjko because
12 Pranjko does not disclose the elliptic end zone recited in claim 50 from
13 which claims 51-53 depend.

14 We will sustain this rejection as it is directed to claim 16 because
15 claim 16 does not recite that the curves are elliptical, hyperbolic or parabolic
16 and Pranjko discloses two regions with the required relationships between
17 the radii of curvatures as recited in claim 16.

18 We do not find persuasive the Appellants' argument that the Pranjko
19 device could include a variety of shapes, because Pranjko discloses only
20 smooth surfaces for the front view, back, side and top view and there is
21 nothing in Pranjko to indicate that there are a variety of shapes.

22 We will also sustain this rejection as it is directed to claim 17 because
23 claim 17 does not recite the specific shapes of the curvature but only recites
24 that the regions are concave and convex, both of which are disclosed in
25 Pranjko.

1 *Obviousness in view of Pranjko and Packham or Furuichi*

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3 We will sustain the Examiner's rejections of claims 18, 19, 38, 39, 42,
4 43, 46 and 47 as being unpatentable over Pranjko in view of Packham and
5 Pranjko in view of Furuichi. We are not persuaded by Appellants' argument
6 that the undercutters disclosed in Packham and Furuichi would not work in
7 the shaver of Pranjko because the Packham and Furuichi undercutters are
8 straight undercutters. While it may be true that a straight undercutter as
9 disclosed in Packham and Furuichi would not work if placed in the curved
10 shaver of Pranjko, all of the features of the secondary reference need not be
11 bodily incorporated into the primary reference (*see In re Keller*, 642 F.2d
12 413, 425, 208 USPQ 871, 881 (CCPA 1981) and the artisan is not compelled
13 to blindly follow the teaching of one prior art reference over the other
14 without the exercise of independent judgment (*see Lear Siegler, Inc. v.*
15 *Aeroquip Corp.*, 733 F.2d 881, 889, 221 USPQ 1025, 1032 (Fed. Cir.
16 1984)). Packham and Furuichi are cited for teaching the use of undercutters
17 and driving means in a shaver. In this regard, a person of ordinary skill in
18 the art would know to conform the undercutter to the shape of the overcutter.
19 After all, a person of ordinary skill in the art is a person of creativity not an
20 automaton. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742, 82 USPQ2d
21 1385, 1397 (2007).

22 *Obviousness in view of Pranjko*

23 We will sustain the Examiner's rejection of claims 55 and 56 under 35
24 U.S.C. § 103 as being unpatentable over Pranjko. We are not persuaded by
25 the Appellants' argument that a person of ordinary skill in the art would not
26 know how to fabricate the shaver cutter recited in these claims. As we stated

1 above, in our view, a person of ordinary skill would indeed know how to
2 fabricate a shaver comprised of plastic or metal as the art of fabrication of
3 shavers is not an unpredictable art and there are known methods of
4 fabrications as they relate to plastics and metals.

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6
7 **CONCLUSION/ORDER**

8 The Examiner's rejection of claims 1-15, 50-57 and 58 under 35
9 U.S.C. § 102(b) as anticipated by Pranjko is not sustained.

10 The Examiner's rejection of claims 16 and 17 under 35 U.S.C. §
11 102(b) as anticipated by Pranjko is sustained.

12 The Examiner's rejections of claims 18, 19, 38, 39, 42, 43, 46 and 47
13 under 35 U.S.C. § 103 as being unpatentable over Pranjko in view of
14 Packham or Furuichi are sustained.

15 The Examiner's rejection of claims 55 and 56 under 35 U.S.C. § 103
16 as being unpatentable over Pranjko is sustained.

17 No time period for taking any subsequent action in connection with
18 this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

19 **AFFIRMED-IN-PART**

1 PATE, III, *Administrative Patent Judge*, dissenting-in-part

2 I would affirm the § 102 rejection of independent claims 1, 16, 17,
3 and 50 as lacking novelty over Pranjko.

4 My colleagues are correct in determining that Pranjko is an enabling
5 reference. The Appellants' arguments with respect thereto are exactly that--
6 merely arguments. They are insufficient to establish that the Pranjko
7 disclosure is non-enabling. Appellants argue that the prior art did not know
8 how to electroform a shaving foil in the complex shape claimed. Neither
9 electroforming nor foil is found in the broadest claims.

10 Moreover, the Examiner is certainly correct in finding that Pranjko
11 clearly discloses a shaving cutter, of some unspecified construction, the
12 surface of which is hyperbolic on the inwardly curved side as seen in the
13 plan view and which has an elliptical surface on the outwardly bowed side. I
14 also find the cutter shape of Pranjko to be both convexly curved and
15 concavely curved in two orthogonal planes on the inner side as seen in the
16 plan view and being convexly curved in both orthogonal planes as required
17 in claim 17. These are merely alternative definitions of hyperbolically and
18 elliptically curved surfaces, and fully comport with the definition of such
19 surfaces found in Appellants' Specification, especially at lines 23-25 of page
20 1 thereof. I do not believe an extended discussion of hyperbolic, parabolic
21 and elliptic surfaces are necessary at this point. They are well defined in the
22 Specification and I fully adopt the definition found therein at lines 6-32 of
23 the first Page. Pranjko clearly satisfies this definition of elliptical and
24 hyperbolic.

1 As the predecessor to our reviewing court stated in *In re Wilson*, 312
2 F.2d 449, 454, 136 USPQ 188, 192 (1963): “Patent drawings are not
3 working drawings” However, we did not mean that things patent
4 drawings show clearly are to be disregarded. As this court there said,
5 “Description for the purposes of anticipation can be by drawings alone as
6 well as by words (citation omitted).”

7 In a situation similar to the use of the drawings of a design patent as a
8 basis of rejection, this court has stated that a drawing in a utility patent can
9 be cited against the claims of a utility patent application even though the
10 feature shown in the drawing was unintended or unexplained in the
11 specification of the reference patent. *In re Aslanian*, 590 F.2d 911, 914, 200
12 USPQ 500, 503 (CCPA 1979) (citing *In re Meng*, 492 F.2d 843, 847, 181
13 USPQ 94, 97 (the staggered cheese slices case) (CCPA 1974); *In re Seid*, 34
14 CCPA 1039, 161 F.2d 229, 231, 73 USPQ 431, 433 (1947)); *In re Wagner*,
15 20 CCPA 985, 63 F.2d 987, 988, 17 USPQ 243, 244 (1933)). In the light of
16 the legal precedents cited and the underlying principle of patent law that no
17 patent should abridge the right of the public to enjoy what is already within
18 the public domain, we can find no reason for excluding design patents from
19 the classes of prior art properly citable in a rejection under 35 U.S.C. § 103.

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Appeal 2007-2732
Application 09/422,758

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